[002] This application is a national stage completion of PCT/EP2003/009964 filed September 8, 2003 which claims priority from German Application Serial No. 102 42 645.7 filed September 13, 2002.

[003] FIELD OF THE INVENTION

[015] BACKGROUND OF THE INVENTION

[017] SUMMARY OF THE INVENTION

[028] BRIEF DESCRIPTION OF THE DRAWINGS

[032] DETAILED DESCRIPTION OF THE INVENTION

19. (NEW) A method for production of an electrical connection from assemblies and modules to a current transmitter unit (1), which is provided with electrical contact elements (2) and with magnet bodies, and having a current receiver unit (3) which is provided with electrical mating contact elements (4) and with magnet bodies, which are arranged opposite one another, with opposite polarity to the magnet bodies in the current transmitter unit (1), wherein the electrical contact between the contact elements (2) and the mating contact elements (4) is made via flat contacts with flat contact points, characterized in that for connection via an approximate guide (9, 10 or 11a, 11b respectively) in a first step, a mechanical connection is made with oversize play between connection elements in the connection for tolerance compensation and, in a second step, exact positioning and centering are carried out by the magnetic attraction forces between the magnet bodies in the current transmitter unit (1) and the magnet bodies in the current receiver unit (3) by precision guidance and an electrical contact being made between the contact elements (2) and the mating contact elements (4).

20. (NEW) The method as claimed in claim 19, wherein the current is supplied to the current transmitter unit (1) via a magnet slide (12) which is provided with electrical current supply contacts (13) and, after the first step is moved in the direction of the current receiver unit (3) after the first step with the mechanical connection by means of the magnet bodies (14)

in the current receiver unit (3), thus making the electrical contact.

21. (NEW) A connection apparatus for production of an electrical connection from modules or assemblies to a current transmitter unit (1) which is provided with electrical contact elements (2) and with magnet bodies, and having a current receiver unit (3) which is provided with electrical mating contact elements (4) and with magnet bodies, which are arranged with opposite polarity to the magnet bodies opposite one another, when the current transmitter unit (1) is connected to the current receiver unit (3) wherein, the contact elements are in the form of flat contacts (2, 4) with flat contact points, characterized in that an approximate guide (9, 10 or 11a, 11b, respectively) is provided as a mechanical connection with oversize play, in order to produce the connection, between connection elements of the connection for tolerance compensation and fine guidance with exact positioning and centering is provided by the magnetic attraction forces between the magnet bodies in the current transmitter unit (1) and the magnet bodies in the current receiver unit (3) for an electrical contact between the contact elements (2) and the mating contact elements (4) via the magnet bodies in the current transmitter unit (1) and those in the current receiver unit (3).

22. (NEW) The connection apparatus as claimed in claim 21, wherein the flat contacts (2, 4) are arranged in an elastic wall (8) of the current transmitter unit (1) or of the current receiver unit (3).

23. (NEW) The connection apparatus as claimed in claim 21, wherein the mechanical guide (9, 10 or 11a, 11b, respectively) is designed such that at the end of the mechanical insertion process, the magnet bodies in the current transmitter unit (1) and the magnet bodies in the current receiver unit (3) are arranged at least partially opposite one another.

24. (NEW) The connection apparatus as claimed in claim 21, wherein the mechanical approximate guide has a side guide (11a, 11b) by means of which the current transmitter unit (1) can be positioned above the current receiver unit (3).

25. (NEW) The connection apparatus as claimed in claim 24, wherein the side guide is formed by connection elements in the form of dovetail guides (11a, 11b) in the current transmitter unit (1) and in the current receiver unit (3), with the dovetail guides (11a, 11b) being designed with oversized play.

26. (NEW) The connection apparatus as claimed in claim 25, wherein the play is at least 1 mm, and is preferably 2 mm, at least in the direction of the current receiver unit (3) to be fitted.

27. (NEW) The connection apparatus as claimed in claim 21, wherein the approximate guide has a vertical guide (9, 10) by means of which the current receiver unit (3) can be fitted to the current transmitter unit (1).

28. (NEW) The connection apparatus as claimed in claim 27, wherein the connection elements of the vertical guide are provided with oblique guides in the form of conical depressions (10) or projections (9).

29. (NEW) The connection apparatus as claimed in claim 28, wherein the oblique guides (9, 10) are provided with oversize play.

30. (NEW) The connection apparatus as claimed in claim 29, wherein the play which is possible on the oblique guides (9, 10) is at least 1 mm, and is preferably 2 mm.

31. (NEW)The connection apparatus as claimed in claim 27, wherein the approximate guide (9, 10) is provided with a bayonet fitting.

32.(NEW) The connection apparatus as claimed in 21, wherein the approximate guide (9, 10 or 11a, 11b respectively) is designed such that a latching connection is produced at the end of the mechanical insertion process.

33. (NEW) The connection apparatus as claimed in claim 21, wherein the current transmitter unit (1) is provided with a magnet tray (12), which is provided with current supply contacts (16), with the magnet tray (12) being moveable in the direction of the current receiver unit (3) which is to be fitted, and with an electrical connection to the contact elements (2) being formed in the moved position.

34. (NEW) The connection apparatus as claimed in claim 33, wherein the magnet tray (12) is provided with a restraining device (15).

35. (NEW) The connection apparatus as claimed in claim 34, wherein the restraining device is provided with a magnet (15) or a material composed of a magnetic substance, which is arranged

in the current transmitter unit (1) on the side facing away from the current receiver unit (3) which is to be fitted.